

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-13. (Cancelled)

14. (Currently Amended) A method of generating a ligand profiles profile for a given type of cell, comprising:

- (a) providing a sample of lysate of the given type of cell, wherein the sample comprises a first plurality of polypeptide ligands bound to a first type of multi-ligand binding receptor and a second plurality of polypeptide ligands bound to a second type of multi-ligand binding receptor;
- (b) isolating the first and second types of multi-ligand binding receptors from the sample;
- (c) separating the first plurality of ligands from the first type of multi-ligand binding receptor and the second plurality of ligands from the second type of multi-ligand binding receptor;
- (d) fractionating the first plurality of ligands and the second plurality of ligands; and
- (e) generating a first profile distinguishing among the first plurality of ligands on the basis of at least one chemical or physical attribute and a second profile distinguishing among the second plurality of ligands on the basis of the same at least one chemical or physical attribute.

15-42. (Canceled)

43. (New) The method of claim 14, wherein the first type of multi-ligand binding receptor is an MHC class I or MHC class II receptor.

44. (New) The method of claim 14, wherein the second type of multi-ligand binding receptor is an MHC class I or MHC class II receptor.

45. (New) The method of claim 14, wherein the first type of multi-ligand binding receptor is an MHC class I or MHC class II receptor and the second type of multi-ligand binding receptor is an MHC class I or MHC class II receptor.

46. (New) The method of claim 14, wherein the first type of multi-ligand binding receptor is a chaperone, a calnexin, a calreticulin, a mannosidase, a N-glycanase, a BIP, a grp94, a grp96, an E2 ubiquitin carrier protein, an E3 ubiquitin ligase, an unfoldase, a proteasome, a trafficking protein, or a retention protein.

47. (New) The method of claim 14, wherein the second type of multi-ligand binding receptor is a chaperone, a calnexin, a calreticulin, a mannosidase, a N-glycanase, a BIP, a grp94, a grp96, an E2 ubiquitin carrier protein, an E3 ubiquitin ligase, an unfoldase, a proteasome, a trafficking protein, or a retention protein.

48. (New) The method of claim 14, wherein the first type of multi-ligand binding receptor is a chaperone, a calnexin, a calreticulin, a mannosidase, a N-glycanase, a BIP, a grp94, a grp96, an E2 ubiquitin carrier protein, an E3 ubiquitin ligase, an unfoldase, a proteasome, a trafficking protein, or a retention protein and the second type of multi-ligand binding receptor is a chaperone, a calnexin, a calreticulin, a mannosidase, a N-glycanase, a BIP, a grp94, a grp96, an E2 ubiquitin carrier protein, an E3 ubiquitin ligase, an unfoldase, a proteasome, a trafficking protein, or a retention protein.

49. (New) The method of claim 14, wherein the first type of multi-ligand binding receptor is a chaperone selected from the group consisting of a chaperonin, hsp60, hsp65, hsp70, hsp90, hsp25, and hsp100.

50. (New) The method of claim 14, wherein the second type of multi-ligand binding receptor is a chaperone selected from the group consisting of a chaperonin, hsp60, hsp65, hsp70, hsp90, hsp25, and hsp100.

51. (New) The method of claim 14, wherein the first type of multi-ligand binding receptor is a chaperone selected from the group consisting of a chaperonin, hsp60, hsp65, hsp70, hsp90, hsp25, and hsp100 and the second type of multi-ligand binding receptor is a chaperone selected from the group consisting of a chaperonin, hsp60, hsp65, hsp70, hsp90, hsp25, and hsp100.

52. (New) The method of claim 14, wherein the at least one chemical or physical attribute comprises hydrophobicity or charge.

53. (New) The method of claim 14, wherein the at least one chemical or physical attribute comprises mass-to-charge ratio.

54. (New) The method of claim 14, wherein the at least one chemical or physical attribute comprises amino acid sequence.

55. (New) The method of claim 14, wherein the at least one chemical or physical attribute comprises ion fragmentation patterns.

56. (New) The method of claim 14, wherein at least 100 polypeptide ligands are represented in the ligand profiles.

57. (New) The method of claim 45, wherein the at least one chemical or physical attribute comprises hydrophobicity or charge.

58. (New) The method of claim 45, wherein the at least one chemical or physical attribute comprises mass-to-charge ratio.

59. (New) The method of claim 45, wherein the at least one chemical or physical attribute comprises amino acid sequence.

60. (New) The method of claim 45, wherein the at least one chemical or physical attribute comprises ion fragmentation patterns.

61. (New) The method of claim 45, wherein at least 100 polypeptide ligands are represented in the ligand profiles.